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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/553,137	04/19/2000	Harold R. Blomquist	TRW(VSSIM)4419	3913
26294	7590	10/03/2003	EXAMINER	
TAROLLI, SUNDHEIM, COVELL & TUMMINO L.L.P. 526 SUPERIOR AVENUE, SUITE 1111 CLEVEVLAND, OH 44114			MILLER, EDWARD A	
			ART UNIT	PAPER NUMBER

3641

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/553,137

Applicant(s)

BLOMQUIST, HAROLD R.

Examiner

Edward A. Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20,22,24-30,35 and 36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20,22,24-29 and 35 is/are rejected.
- 7) ☒ Claim(s) 30 and 36 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 14, 2003 has been entered.

3. Claims 20, 22, 24-29 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zeigler '296 in view of Manzara et al. '521, Manser '199, and Gomez et al. '037.

Zeigler '296 teaches the basic claimed invention, an air bag system with a gas generating composition therein that comprises an oxidizer of ammonium nitrate, e.g., a fuel of HMX or RDX, and an energetic binder that may be GAP. Not only is this taught generally, but claim 12, e.g., directly to this was cancelled in this ('296), a reissue of the original Zeigler patent. Manzara et al., Manser, and Gomez et al. all teach further regarding GAP polymers, including that functionality may be 2, molecular weights may be varied, that GAP may be both primary or secondary in hydroxyl functionality, and that aromatic isocyanates (Manser, col. 6, line 19) including diphenylmethane diisocyanate (Manzara et al. col. 13, lines 24-30) are suitable chain extension agents. Variation of specific notoriously well known ingredients or amounts would have been obvious to one of ordinary skill in the art. It is well settled that optimizing a result effective variable is well within the expected ability of a person of ordinary skill in the subject art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), *In re Aller*, 220 F.2d 454, 105 USPQ 233 (CCPA 1955).

4. Claims 20, 22, 24-29 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Finck et al. '171, in view of Wardle '613, Biddle et al. '737, and Menke et al. '168 and '661.

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Finck et al. '171 teach in col. 1, line 29- col. 2, line 8, the provision of air bag safety devices with composite gas generating compositions, which included GAP reacted with polyisocyanate as the binder and ammonium nitrate oxidizer. This is essentially all that is required by claim 20, as amended, in view of the "optional" nature of the pentane diol, as broadly construed. Further, in the first paragraph of col. 2, the use of thermoplastic binders as in view of Wardle '613 is taught. At the bottom of col. 2 of Wardle '613, forming polymers from respective amorphous and crystalline blocks via isocyanate linking moieties is taught. This is further set forth at col. 3, lines 45-60, and that TDI, an aromatic isocyanate, is the preferred linking isocyanate, col. 8, lines 13-17. Although AMMO and BAMO, azido block forming monomers are taught, there is no direct teaching of such block polymer with a GAP block. However, Biddle et al. '737, teaches similar thermoplastic block elastomers, and GAP may form the amorphous or soft block, at col. 6, line 33. Menke et al. '168 and '661 further suggest the combination of GAP/isocyanate binders, with ammonium nitrate oxidizer, and use as gas generators. The claims herein are deemed obvious in view of this prior art. To the extent appropriate, variation of specific well known ingredients or amounts, result effective variables, would have been obvious as set forth in the case law in the above art rejection.


5. Claims 30 and 36 with the pentane diol limitation are free of the prior art.

6. Any inquiry concerning either this or an earlier communication from the Examiner should be directed to Examiner Edward A. Miller at (703) 306-4163. Examiner Miller may normally be reached Monday-Thursday, from 10 AM to 7 PM.

If attempts to reach Examiner Miller by telephone are unsuccessful, his supervisor Mr. Carone can be reached at (703) 306-4198.

If there is no answer, or for any inquiry of a general nature or relating to the application status, please call the Group receptionist at (703) 308-1113.

Miller/em
October 1, 2003


EDWARD A. MILLER
PRIMARY EXAMINER